

healthcare budget restrictions leads to the controversial model of procedural justice. The objective was to describe the characteristics of the current decision-making scenario in Brazil using Health Technology Assessment (HTA), its main actors, consequences and future opportunities. **METHODS:** A review of HTA regulation in Brazil and the published literature on the topic was conducted. The Brazilian HTA model was discussed and strengths and weaknesses highlighted. **RESULTS:** Over the years, drug expenditures and healthcare demand have grown exponentially in Brazil. In 2006, the Brazilian Ministry of Health (MoH) created a HTA process (Regulation #152). The main objective was to align the dynamics of health technology decisions with population social needs, epidemiological profile, and healthcare system financing characteristics. The principal components are a clinical review and economic analysis of technologies under evaluation. Multiple government players are involved, but no reference to external involvement. Health technology decisions take into consideration: a) the relevance/impact of the technology within the system, and b) the safety, effectiveness, and cost-effectiveness of the appraised technologies. No reference was found to what is considered cost-effective/efficient for the system. Proposed HTA regulation changes are underway and include: rapid response, societal engagement (i.e., public consultation of MoH decisions), and changes in decision determinants (i.e., economic impact to be least important). **CONCLUSIONS:** Currently, Brazil holds an informed health technology decision-making process. However, clear/objective parameters for aiding decisions have not been described or yet proposed. Uncertainty still remains with regards to efficient health technology decisions. Current initiatives to improve HTA process are controversial. In the future, HTA could serve as a mediator between constitutional obligations and current budgetary restrictions in the country.

#### Health Care Use & Policy Studies – Health Care Costs & Management

##### PHP36

#### CATASTROPHIC INJURY-RELATED ENROLLMENT AND COSTS IN A STATE MEDICAID FEE-FOR-SERVICE PROGRAM

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**OBJECTIVES:** 1) Calculate the number of enduring enrollees who entered a state Medicaid program because of catastrophic injury, and 2) estimate lifetime Medicaid costs of the enrollees. **METHODS:** De-identified administrative data from a state Medicaid program that included paid fee-for-service claims for medical services and prescription medications dated between 2000 and 2005, as well as an eligibility file listing enrollment periods of recipients, were the data source. The study is a prospective, longitudinal, historical cohort design. Inpatient hospitalization claims with a diagnosis of injury in any of the first three diagnosis fields were extracted. The study sample comprised recipients less than 65 years old whose eligibility for Medicaid began on the first of the month in which a hospitalization for injury occurred. The cohort was followed for the duration of each recipient's initial eligibility period. Costs were discounted at 3% and from the perspective of Medicaid. **RESULTS:** Eligibility of 2089 recipients started the month they were hospitalized for injury over the study period, a rate of approximately 1.1 per 1000 recipients per year and 6.0 per 1000 new recipients per year. Among the 2089 cohort, 364 (17%) recipients had open-ended eligibility that could last the duration of life; a majority of whom were over 20 years old. Adults with injury with open-ended eligibility accounted for approximately 1.5 per 1000 new adult recipients per year. The estimated lifetime Medicaid cost for medical services and prescription drugs for a 30-year old male recipient with injury with lifetime eligibility equaled \$76,833. **CONCLUSIONS:** Catastrophic injury can lead an individual to enter Medicaid. One in six entrants may require lifetime Medicaid coverage. In this study, the rate of lifetime eligibility for Medicaid occurred with low incidence. However, the cost of injury to the Medicaid program often greatly exceeds the cost of injury treatment alone.

##### PHP37

#### A REGISTRY PERSPECTIVE OF OF HOSPITAL DISCHARGE COSTS: PILOT RESULTS OF THE 10 MOST FREQUENT DIAGNOSIS AND PROCEDURES OF THE ARGENTINE-HEALTH CARE COST AND UTILIZATION PROJECT (A-HCUP)

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**OBJECTIVES:** The priority of hospital health care results and costs in transitional countries, needs to avoid non-standardized, unreliable or non-existent data. To achieve this goal we developed a hospital discharge registry in Argentina **METHODS:** A Minimum Discharge Data Set (MDS), designed and extracted from a 1 year output, 2007-2008, of 3 non-profit hospitals with information systems. Cost and result indicators, harmonized according to WHO and HCUPS (USA) terminology, groupers (Clinical Classification Software-CCS single level-SL, 2009) of primary diagnosis (D×1) and procedures (P×1), (#CCS [descriptive term]), total costs (CT\$) and median per discharge cost (\$, 25<sup>th</sup>-75<sup>th</sup>-percentiles), in international dollars PPP, (UN Data: 1Arg\$ = 1.608 PPP, 2008) were obtained, generating a Pareto ranking of 10 most frequent CCS discharge codes. **RESULTS:** 58116 discharges with 17125 Dx1 and 9163 Px1 were obtained. The first 10 CCS-SL Dx1 were: #218 [living recently born] (\$ 229, 117-251); #45 [chemotherapy, radiotherapy], (\$4705; 1946-8212); #196 [pregnancy and normal delivery], (\$ 4.829; 2.958-5.985); # 149 [biliary disorders], (\$ 5.932; 4.700-9.268); #122 [Pneumonia], (\$ 2.193; 1.280- 4.856); #101 [coronary atherosclerosis], (\$ 22.090; 5.586-38.692); #108 [congestive heart failure, non- hypertensive], (\$ 1.918; 989-6.156); # 195 [other complications of delivery], (\$ 6.940; 3.971-8.341); #144 [unspecified neoplasia], (\$ 12.975; 4.511-28.960), y #203 [osteoarthritis],

(\$ 13.490; 8.753- 20.305); comprised 29,4% of discharges, with a CT\$ \$ 142.852.765 (23,7%). The procedure related CCS of delivery are cesarean section (#134) and other birth related (#137,#135) represented 6.95% of primary procedures (P×1). The most costly procedure was P×1 # (\$ 15.834; 4.860-32.168). The first 10 P× constitutes a 17,6% of discharges and a 23.9% of procedure CT\$. **CONCLUSIONS:** Transitional countries can develop this information, but harmonization is required. We obtained 30% of total costs (CT\$) and per discharge costs (\$) with a Pareto rank. Future studies need to improve within country generalizability of results.

##### PHP38

#### UTILIZATION, PRICE AND SPENDING OF ANTI-TUMOR NECROSIS FACTOR BIOLOGICS IN THE UNITED STATES MEDICAID PROGRAM

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**OBJECTIVES:** Anti-TNF (tumor necrosis factor) drugs are extremely effective for the treatment of many auto-immune diseases such as rheumatoid arthritis, multiple sclerosis, and psoriasis. The high price of these medications has a significant impact on the Medicaid budget. The objective was to determine the trends in utilization, price and spending for anti-TNF biologics and to analyze the market share competition between biologics. **METHODS:** A retrospective, descriptive analysis was conducted using national summary files from the Medicaid State Drug Utilization Data from 1998 to 2010. Quarterly number of prescriptions and reimbursement data were calculated for the trends analysis. Study drugs included all brand and generic names of anti-TNF biologics (e.g., abatacept, adalimumab, anakinra, certolizumab, etanercept, golimumab, infliximab, and rituximab). Market shares for biologics were quantified and compared between 2006 and 2010. The quarterly price per prescription was calculated by dividing the total reimbursement by the total number of prescriptions. **RESULTS:** The data show an increase in the number of prescriptions reimbursed over time. Etanercept is the most commonly prescribed biologic in this class, followed by adalimumab. Medicaid has reimbursed over \$1 billion for etanercept, and \$500 million for adalimumab. During the period from 2006Q1 to 2010Q1, etanercept lost 35% of its market share. While all other compounds increased their market share, etanercept lost 40% of its sales market share. All study biologics have experienced an increase reimbursed price since initial market entry after one year of entry into market. Older biologics like etanercept and adalimumab increased over 100% and 60%, respectively. Certolizumab which has only been on the market for two years has increased 15%. **CONCLUSIONS:** Biologic medicines represent some of the most complex but costly products. It will be critical to devise creative methods and incentives to control the costs of these medicines without stifling the innovation.

##### PHP40

#### HEALTH CARE REFORMS UNDER ECONOMIC CRISIS: THE GREEK CASE

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**BACKGROUND:** Since the establishment of the Greek National Health Care System in 1983 several reforms have been legally introduced without being implemented. The recent economic crisis aggravated the performance of the health care system increasing the inefficiencies and the inequalities. **OBJECTIVES:** The aim of the study is to perform a systematic review and critical appraisal of efficiency, quality, effectiveness and equality of the Greek health care system since the 1980s. **METHODS:** A systematic literature review was performed using the following databases: Center for Reviews and Dissemination (CRD), PubMed, ScienceDirect, EconLit and EconPapers. The key words used are "Greece", "health" and "health care". The retrieved articles searched were 338. Of these 73 papers were included in the study analyzing efficiency, equality, and effectiveness of the Greek health care system over the period 1990-2011. The evolution of public and private health expenditures in conjunction with GDP and health outcome indicators is concerned using both descriptive and econometric models. **RESULTS:** The Greek health care system is fragmented with a mix of public and private activities. Private financing in Greece is the highest in the European Union with oligopolistic trends in private hospitals and diagnostic centers. Satisfaction with public services is one of the lowest in the EU27 countries. Informal payments constitute a significant share creating distortions in the efficiency of the public sector. Furthermore, informal payments are regressive imposing a higher economic burden in the lower income classes. **CONCLUSIONS:** The systematic review highlights the persistent problems of the Greek health care system and signifies the importance of health care reforms towards greater efficiency and convergence with the rest of the EU countries.

##### PHP41

#### THE CHANGING LANDSCAPE OF ORPHAN DRUG PROVISION IN THE EU5 AND THE UNITED STATES

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**OBJECTIVES:** The global health care environment is in a considerable state of flux with many national health systems undergoing some degree of reform. Orphan drugs have historically been funded at a national level through different systems to the rest of the pharmacopeia. With this in mind, the author set out to assess the impact of healthcare reform on how orphan drugs are likely to be provided for in the future. **METHODS:** This project involved a study of orphan drug provision in the past and more recently, including both primary and secondary research elements. Trends in the changing healthcare market and specific reforms were considered as part of a prospective study on the orphan drug landscape. **RESULTS:** Orphan drug provision usually utilises a separate infrastructure to manage the allocation of funding, with this system insulated to a degree from general healthcare reform. In countries where rare diseases are treated in specific institutions (e.g. Italy) there is